

REMARKS

This Request for Reconsideration is in response to the Office Action of October 7, 2004 in which claims 6-9 were allowed, claims 1 and 10 rejected as being unpatentably obvious over Widegren et al and claims 2-5 and 11-14 were objected to.

Claim 1 has been amended to correct an inadvertent error.

Regarding the 35 U.S.C. § 103(a) rejection of claims 1 and 10 as being unpatentably obvious over Windegren et al (U.S. 6,374,112) in view of the admitted prior art, applicant would first like to make a few remarks about connection setup in UMTS (Universal Mobile Telecommunications System).

As explained in the introductory part of the best mode section beginning on page 9 of the present specification, normally the user equipment (UE) will activate a connection establishment request to the core network of Fig. 13 by requesting an IP address and among other things a certain QoS be associated with the connection. The core network responds by sending a request to the UTRAN (UMTS Terrestrial Radio Network) to establish a radio access bearer (RAB) to carry out the request. An RAB setup procedure is then carried out at the UTRAN between the RANAP (Radio Access Network Application Part) and the RRC (Radio Resource Control) and, once completed, the RAB assignment of a QoS profile and bearer ID are signaled back to the core network. The connection setup is then completed at the core network and signaled back to the user equipment.

The illustration shown in Fig. 7 of the Windegren et al reference illustrates a functional block diagram of flexible mapping of different radio access bearers to different types of physical radio channels, as mentioned by the Examiner. The way these bearers can be established is disclosed by Windegren et al in the flow charts of Figs. 4, 5, 6, and 9. Notice that in all of these procedures (see Fig. 9 for example) the core network determines the QoS and/or specified traffic parameters for the radio access bearer request in the core network and selects one of the possibilities 254, 256, 258, 260, 262, 264 at a layer above the

RLC/MAC layer shown in Fig. 7. In Fig. 7 of the Windegren et al reference, the control plane of RAN I/F 216 and user plane of RAN I/F 218 are distinctly shown as demarcating the UTRAN from core network functionality.

As a result of this, the selection of the appropriate service by the core network determines whether frame streaming transport 212 is to be used or scheduled transport of frames 214. It also determines whether segmentation/reassembly is to be performed or not within the frame streaming transport option. It will not be performed if speech services are to be delivered on the selected bearer. Notice that this does not constitute a segmentation state indicator. Rather, whether segmentation/reassembly is to be performed or not is determined by the core network making a selection at a layer above the RLC/MAC layer without any signaling of the selection information to a segmentation/reassembly layer.

The presently claimed invention specifically claims that a segmentation state indicator is signaled to a segmentation/reassembly layer of the radio access network. It cannot be said that the core network of Fig. 7 (as also shown in Fig. 8 of the reference) constitutes a segmentation/reassembly layer.

The presently claimed invention also claims that in response to the segmentation state indicator, segmentation is blocked in the RLC layer of the radio access network for the RB in case the indicator indicates an inactive segmentation state and that segmentation is permitted in case the indicator indicates an active segmentation state. This means that actual signaling has to come into the RLC layer of the radio access network and the RLC layer has to carry out the steps necessary to block or permit segmentation.

Such is not shown or even suggested by Windegren et al. As pointed out in the Background of the Invention section of the present specification, there is a problem in how to map data received from the lu interface e.g., every 10 milliseconds, to a valid TTI, when the TTI used in the UTRAN (TTI's of various periodicities) is different from the transmission interval used on the lu interface (10 milliseconds). Note that Windegren et al in Fig. 7 shows frame delivery at every 10 milliseconds to the physical layer. The purpose of the present invention

is to permit TTI's of periodicities different from 10 milliseconds on the physical layer and within the UTRAN itself up to the point where it interfaces with the core network. So, even though the core network interfaces with the UTRAN using 10 millisecond frames according to the present invention, the UTRAN can communicate with the user equipment using different periodicities. The signaling of the present invention as claimed in claims 1 and 10 permits this to happen (see page 7, lines 3-9).

With the above discussion as background, it should be apparent that the selection of the data type in the core network as shown in Fig. 7 and the flow charts of Windegren et al does not perform as a segmentation state indicator as claimed. Thus, even in view of the admitted prior art, one of ordinary skill in the art would not have been motivated to provide such a segmentation state indicator for the purpose of causing segmentation to either be blocked or permitted in the RLC layer of the UTRAN for a given radio bearer.

Withdrawal of the 35 U.S.C. § 103(a) rejection of claims 1 and 10 is requested.

The objections and rejections of the Office Action of October 7, 2004, having been obviated by amendment or shown to be inapplicable, withdrawal thereof is requested and passage of claims 1-18 to issue is solicited.

Respectfully submitted,



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